1. First, find the equation of the line containing the two points below. Then, write the equation in the form y = mx + b and choose the intervals that contain m and b.

$$(-4, -5)$$
 and $(-8, 4)$

A.
$$m \in [-5.25, 0.75]$$
 $b \in [12.7, 14.1]$

B.
$$m \in [2.25, 6.25]$$
 $b \in [19.8, 22.7]$

C.
$$m \in [-5.25, 0.75]$$
 $b \in [-2.2, 2]$

D.
$$m \in [-5.25, 0.75]$$
 $b \in [-17.3, -13.9]$

E.
$$m \in [-5.25, 0.75]$$
 $b \in [11.7, 12.2]$

2. Solve the linear equation below. Then, choose the interval that contains the solution.

$$\frac{5x-3}{3} - \frac{9x+5}{2} = \frac{-3x+9}{5}$$

A.
$$x \in [-0.3, 0.3]$$

B.
$$x \in [-4.5, -0.7]$$

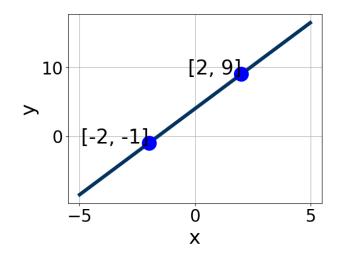
C.
$$x \in [-6.6, -4.2]$$

D.
$$x \in [-9.5, -7]$$

- E. There are no real solutions.
- 3. Write the equation of the line in the graph below in Standard Form Ax + By = C. Then, choose the intervals that contain A, B, and C.

Progress Quiz 6

Version C



- A. $A \in [-2.5, 3.5], B \in [-0.1, 1.48], \text{ and } C \in [3, 7]$
- B. $A \in [-2.5, 3.5], B \in [-1.5, -0.51], \text{ and } C \in [-5, -3]$
- C. $A \in [4, 6], B \in [1.69, 3.53], \text{ and } C \in [8, 15]$
- D. $A \in [4, 6], B \in [-2.2, -1.73], \text{ and } C \in [-10, -7]$
- E. $A \in [-9, -3], B \in [1.69, 3.53], \text{ and } C \in [8, 15]$
- 4. Solve the equation below. Then, choose the interval that contains the solution.

$$-13(5x+19) = -3(-11x+15)$$

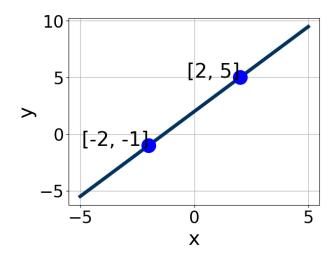
- A. $x \in [1.3, 3.6]$
- B. $x \in [-9.8, -7.4]$
- C. $x \in [-2.7, -1.6]$
- D. $x \in [-3.3, -2.5]$
- E. There are no real solutions.
- 5. Find the equation of the line described below. Write the linear equation in the form y = mx + b and choose the intervals that contain m and b.

Parallel to 5x - 7y = 14 and passing through the point (10, 3).

A.
$$m \in [-1.26, -0.2]$$
 $b \in [8.8, 10.4]$

Progress Quiz 6

- B. $m \in [0.07, 1.38]$ $b \in [-8.4, -4.5]$
- C. $m \in [0.07, 1.38]$ $b \in [3.2, 6.7]$
- D. $m \in [1.02, 1.91]$ $b \in [-4.3, -1.4]$
- E. $m \in [0.07, 1.38]$ $b \in [-4.3, -1.4]$
- 6. Write the equation of the line in the graph below in Standard Form Ax + By = C. Then, choose the intervals that contain A, B, and C.



- A. $A \in [-4.5, -2.5], B \in [1.58, 2.76], \text{ and } C \in [3.79, 5.34]$
- B. $A \in [-2.8, 0.7], B \in [0.02, 1.16], \text{ and } C \in [0.61, 2.29]$
- C. $A \in [1, 5.7], B \in [-3.02, -1.46], \text{ and } C \in [-6.48, -3.39]$
- D. $A \in [-2.8, 0.7], B \in [-1.76, -0.98], \text{ and } C \in [-3.88, -1.87]$
- E. $A \in [1, 5.7], B \in [1.58, 2.76], \text{ and } C \in [3.79, 5.34]$
- 7. Find the equation of the line described below. Write the linear equation in the form y = mx + b and choose the intervals that contain m and b.

Parallel to 5x - 7y = 10 and passing through the point (3, 2).

- A. $m \in [1.06, 2.08]$ $b \in [-0.6, 0.04]$
- B. $m \in [0.14, 0.72]$ $b \in [-0.6, 0.04]$

C.
$$m \in [-0.75, -0.33]$$
 $b \in [4.03, 4.42]$

D.
$$m \in [0.14, 0.72]$$
 $b \in [-1, -0.92]$

E.
$$m \in [0.14, 0.72]$$
 $b \in [-0.13, 0.34]$

8. Solve the equation below. Then, choose the interval that contains the solution.

$$-6(18x - 14) = -10(5x + 7)$$

A.
$$x \in [2.61, 2.82]$$

B.
$$x \in [0.18, 0.34]$$

C.
$$x \in [-0.04, 0.22]$$

D.
$$x \in [-0.6, -0.1]$$

- E. There are no real solutions.
- 9. First, find the equation of the line containing the two points below. Then, write the equation in the form y = mx + b and choose the intervals that contain m and b.

$$(10,4)$$
 and $(9,-7)$

A.
$$m \in [9, 13]$$
 $b \in [106, 110]$

B.
$$m \in [9, 13]$$
 $b \in [-107, -103]$

C.
$$m \in [9, 13]$$
 $b \in [-6, -2]$

D.
$$m \in [-15, -8]$$
 $b \in [92, 93]$

E.
$$m \in [9, 13]$$
 $b \in [-23, -13]$

10. Solve the linear equation below. Then, choose the interval that contains the solution.

$$\frac{-4x+9}{3} - \frac{-3x-4}{8} = \frac{-5x+6}{4}$$

A.
$$x \in [-0.5, 3.5]$$

- B. $x \in [-8.86, -5.86]$
- C. $x \in [-4.43, -1.43]$
- D. $x \in [-25, -22]$
- E. There are no real solutions.

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